AN 93-070334 JAPIO

TI SKIN MEDICINE FOR EXTERNAL USE

IN SASAKI ICHIRO; KOIDE CHIHARU; KOBAYASHI NOBORU; HIROBE MIDORI

PA KOSE CORP, JP (CO 402300)

PI JP 05070334 A 19930323 Heisei

AI JP 91-233238 (JP03233238 Heisei) 19910912

SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 1087, Vol. 17, No. 391, P. 43 (19930722)

AB PURPOSE: To obtain a skin medicine for external use capable of effectively making its cell activator permeate to the interior of the skin and remarkably improving its effects by using a cell activator and a complex of a protein and/or its hydrolyzate with a phospholipid in combination. CONSTITUTION: A skin medicine for external use is obtained by blending a complex of a protein (e.g. collagen or lactoglobulin) and/or its hydrolyzate with a phospholipid (e.g. hydrogenated soybean lecithin) together with a cell activator such as an extract derived from blood serum or hemocyte, royal jelly, an aloe extract, .gamma.-linolenic acid with other ingredients. The above- mentioned complex is preferably blended in an amount of about 0.05-5wt.% in the skin medicine for the external use. The cell activator is preferably blended in an amount of about 0.01-1wt.%. The skin medicine for the external use is used as a milky lotion, a cream, a cosmetic, a beautifying solution, a cleansing, a pack, a shampoo, a rinse, a hair liqu

N 93-070333 JAPIO

0.001-3.0wt.%.

- TI SKIN MEDICINE FOR EXTERNAL USE
- IN KOIDE CHIHARU; SASAKI ICHIRO; EGAWA JUNICHIRO; ASANO YUKI
- PA KOSE CORP, JP (CO 402300)
- PI JP 05070333 A 19930323 Heisei
- AI JP 91-233236 (JP03233236 Heisei) 19910912
- SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 1087, Vol. 17, No. 391, P. 43 (19930722)
- PURPOSE: To obtain a skin medicine for external use, containing an AB active oxygen remover and/or an antioxidant and further a complex of a protein or its hydrolyzate with a phospholipid in combination, capable of suppressing formation of peroxides in a product and excellent in aging preventive and skin roughening improving effects. CONSTITUTION: A skin medicine for external use is obtained by including an active oxygen remover (e.g. superoxide dismutase, mannitol or .beta.-carotene) and/or an antioxidant (e.g. vitamin B s, vitamin C or glutathione) and further a protein (e.g. collagen)-phospholipid (e.g. hydrogenated soybean lecithin) complex used in combination. The resultant skin medicine for external use is capable of suppressing formation of peroxides, stable with time and excellent in skin aging preventive and roughening improving effects. The above-mentioned complex is preferably blended in an amount of about 0.05-5 wt.% in the medicine for the external use to sufficiently improve effects of the active oxygen remover and/or the antioxidant and prevent stickiness. The active oxygen remover and the antioxidant are preferably blended in an amount of about

```
249402 BOUND
                  (BOUND / BOUNDS)
         704083 COMPLEX
         442101 COMPLEXES
         881681 COMPLEX
                  (COMPLEX OR COMPLEXES)
         494041 COMPOSITION
         168781 COMPOSITIONS
         660051 COMPOSITION
                  (COMPOSITION OR COMPOSITIONS)
L2
             8 ((PROTEIN OR SOYBEAN OR WHEAT) (5A) HYDROLYZATE) (7A)
                (LIPID OR PHOSPHOLIPID) (7A) (BOUND OR COMPLEX OR COMPOSIT
                ION)
=> d 1-8 all
L2
     ANSWER 1 OF 8 CAPLUS COPYRIGHT 1997 ACS
     1993:415143 CAPLUS
NA
DN
     119:15143
TT
     Cosmetic emulsions containing protein (hydrolyzate
     )-phospholipid complexes and sterols and/or
     lanolin alcohols
     Asano, Yuki; Egawa, Junichiro; Kobayashi, Noboru; Hirobe, Midori;
ΙN
     Adachi, Katsuyoshi
PA
     Kosei Kk, Japan
     Jpn. Kokai Tokkyo Koho, 6 pp.
SO
     CODEN: JKXXAF
ΡI
     JP 05070323 A2 930323 Heisei
     JP 91-233237 910912
ΑI
DT
     Patent
LΑ
     Japanese
IC
     ICM A61K007-00
     ICS A61K007-08
CC
     62-4 (Essential Oils and Cosmetics)
AΒ
     Stable cosmetic emulsions contain protein (
     hydrolyzate) -phospholipids complexes and
     cholesterol (derivs.), phytosterol, and/or lanolin alcs. Collagen
     1.0, hydrogenated soybean lecithin 0.1, H2O 98.4, and antiseptic 0.5
     wt.% were homogenized and treated with supersonic wave for 30 min to
     give collagen-lecithin complex. An emulsion contg. the complex,
     cholesterol, etc. was formulated.
ST
     protein phospholipid complex cosmetic emulsion; phytosterol
     cholesterol phospholipid cosmetic emulsion; lanolin alc cosmetic
     emulsion
ΤТ
     Lactoglobulins
     Protein hydrolyzates
     Collagens, biological studies
     Globulins, biological studies
     Proteins, biological studies
     RL: BIOL (Biological study)
        (complexes with phospholipids, cosmetic
        emulsions contg. sterols and/or lanolin alcs. and, stable)
IT
     Lecithins
     Phospholipids, biological studies
     RL: BIOL (Biological study)
        (complexes with proteins, cosmetic emulsions contg. sterols
        and/or lanolin alcs. and, stable)
TΤ
     Cosmetics
     Sunscreens
        (contg. protein-phospholipid complexes and sterols and/or lanolin
       alcs. and, stable)
TΤ
     Lecithins
```

RL: BIOL (Biological study)

```
(hydrogenated, complexes with proteins, cosmetic emulsions contg.
     sterols and/or l lin alcs. and, stable)
Steroids, biological studies
IΤ
     RL: BIOL (Biological study)
         (hydroxy, cosmetic emulsions contg. protein-phospholipid
        complexes and, stable)
     Alcohols, biological studies
TΤ
     RL: BIOL (Biological study)
         (lanolin, cosmetic emulsions contq. protein-phospholipid
        complexes and, stable)
ΤТ
     Fatty acids, esters
     RL: BIOL (Biological study)
        (lanolin, esters, with cholesterol, cosmetic emulsions contg.
        protein-phospholipid complexes and, stable)
                                                 57-88-5D, Cholesterol,
ΙT
     57-88-5, Cholesterol, biological studies
     esters with lanolin fatty acids
                                        40445-72-5
     RL: BIOL (Biological study)
        (cosmetic emulsions contg. protein-phospholipid complexes and,
        stable)
L2
     ANSWER 2 OF 8 CAPLUS COPYRIGHT 1997 ACS
ΑN
     1993:415137 CAPLUS
DN
     119:15137
TI
     Cosmeic skin preparations.
ΙN
     Sasaki, Ichiro; Koide, Chiharu; Kobayashi, Noboru; Hirobe, Midori
PA
     Kosei Kk, Japan
SO
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
PΙ
     JP 05070334 A2 930323 Heisei
     JP 91-233238 910912
ΑI
DT
     Patent
LA
     Japanese
IC
     ICM A61K007-48
     ICS A61K007-00
     62-4 (Essential Oils and Cosmetics)
CC
AΒ
     Skin prepns., which prevent skin aging, promote wound healing, and
     accelerate skin metab., contain complexes of
     proteins and/or their hydrolyzates with
     phospholipids and cell-vitalizing agents. Squalane 5.0,
     vaseline 2.0, beeswax 0.5, sorbitan sesquioleate 0.8,
     polyoxyethylene oleyl ether 1.2, 1,3-butylene glycol 5.0,
     collagen-hydrogenated soybean lecithin complex 0.1, thymus ext. 1.0,
     glycerin 5.0, antiseptic agent 0.2, perfume 0.1, 2% xanthan gum aq.
     soln. 20, and H2O to 20 wt.% were mixed to give an emulsion, which
     prevented skin damage by exposure to UV radiation.
ST
     cosmetic protein phospholipid complex
     Lactoglobulins
     RL: BIOL (Biological study)
        (complexes with phospholipids, cosmetics contg. cell-vitalizing
        agents and)
IT
     Cosmetics
        (contg. protein-phospholipid complexes and cell-vitalizing
        agents)
TΤ
    Blood serum
     Placenta
     Thymus gland
        (ext., cosmetics contg. protein-phospholipid complexes and)
ΤТ
    Collagens, compounds
    Globulins, compounds
     Proteins, specific or class
    RL: BIOL (Biological study)
        (complexes, with phospholipids, cosmetics contg. cell-vitalizing
        agents and)
```

ΙT

Lecithins

```
RL: BIOL (Biologica )tudy)
         (complexes, with proteins, cosmetics contg. cell-
        agents and)
L2
     ANSWER 3 OF 8 CAPLUS COPYRIGHT 1997 ACS
     1993:415136 CAPLUS
ΑN
DN
     119:15136
TΤ
     Cosmetic skin preparations containing active oxygen scavengers and
     antioxidants.
     Koide, Chiharu; Sasaki, Ichiro; Egawa, Junichiro; Asano, Yuki
ΙN
PΑ
     Kosei Kk, Japan
SO
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
PΙ
     JP 05070333 A2 930323 Heisei
ΑI
     JP 91-233236 910912
DT
     Patent
LΑ
     Japanese
IC
     ICM A61K007-48
     ICS A61K007-00
CC
     62-4 (Essential Oils and Cosmetics)
     Cosmetic prepns., which prevent skin aging and protect the skin,
     contain complexes of proteins and/or their
     hydrolyzates with phospholipids, and active O
     scavengers and/or antioxidants. Collagen-hydrogenated soybean
     lecithin complex 1.0, .alpha.-tocopherol 0.01, and squalene 100 wt.
     parts were mixed and exposed to UV for 1 h to show 23 nmol/mL
     peroxide, vs. 109 nmol/mL, without the complex.
     cosmetic antioxidant protein phospholipid complex; active oxygen
ST
     scavenger cosmetic
ΙT
     Lactoglobulins
     RL: BIOL (Biological study)
        (complexes with phospholipids, cosmetics contg. antioxidants and
        active oxygen scavengers and, for prevention of skin aging)
ΙT
     Cosmetics
        (contg. antioxidants and active oxygen scavengers and
        protein-phospholipid complexes, for prevention of skin aging)
ΙT
     Antioxidants
        (cosmetics contg. protein-phospholipid complexes and, for
        prevention of skin aging)
TΨ
     Tannins
     Carotenes and Carotenoids, biological studies
     RL: BIOL (Biological study)
        (cosmetics contg. protein-phospholipid complexes and, for
        prevention of skin aging)
TΤ
     Ginkgo biloba
        (ext., cosmetics contg. protein-phospholipid complexes and, for
        prevention of skin aging)
     Reactive oxygen species
     RL: BIOL (Biological study)
        (scavengers of, cosmetics contg. protein-phospholipid complexes
        and, for prevention of skin aging)
ΙT
    Collagens, compounds
     Globulins, compounds
     Proteins, specific or class
     RL: BIOL (Biological study)
        (complexes, with phospholipids, cosmetics contg. antioxidants and
       active oxygen scavengers and, for prevention of skin aging)
ΙT
    Lecithins
    Phospholipids, compounds
    RL: BIOL (Biological study)
        (complexes, with proteins, cosmetics contq. antioxidants and
       active oxygen scavengers and, for prevention of skin aging)
ΙT
    59-02-9, .alpha.-Tocopherol 117-39-5, Quercetin 501-30-4, Kojic
```

Phospholipids, compounds

```
1406-18-4, Vjtamin E
                                   20704-80-7, Vitamin B2 butyrate
     108910-78-7, Magnes ascorbate phosphate RL: BIOL (Biological study)
         (cosmetics contg. protein-phospholipid complexes and, for
        prevention of skin aging)
     ANSWER 4 OF 8 CAPLUS COPYRIGHT 1997 ACS
L2
     1993:415135 CAPLUS
AN
DN
     119:15135
ΤI
     Cosmetic emulsions.
ΙN
     Egawa, Junichiro; Adachi, Katsuyoshi; Kobayashi, Noboru; Hirobe,
     Midori; Asano, Yuki
PΑ
     Kosei Kk, Japan
SO
     Jpn. Kokai Tokkyo Koho, 6 pp.
     CODEN: JKXXAF
PΙ
     JP 05070332 A2 930323 Heisei
     JP 91-233235 910912
ΑI
DT
     Patent
LΑ
     Japanese
IC
     ICM A61K007-48
     ICS A61K007-00
CC
     62-4 (Essential Oils and Cosmetics)
     Cosmetic emulsion contain unsatd. fatty acids and complexes
AΒ
     of proteins and/or their hydrolyzates with
     phospholipids as emulsifiers. Collagen-hydrogenated soybean
     lecithin complex 1.0, castor oil 20.0, polyalc. 20.0, antiseptic
     agent 0.5, and H2O 58.5 wt.% were mixed to give an emulsion, which
     was stable at room temp. for .gtoreq.1 wk.
ST
     cosmetic emulsifier protein phospholipid complex; unsatd fatty acid
     cosmetic emulsifier
IT
     Lactoglobulins
     RL: BIOL (Biological study)
        (complexes with phospholipids, cosmetic emulsions contg. unsatd.
        fatty acids and, as emulsifiers)
ΙT
     Castor oil
     Olive oil
     RL: BIOL (Biological study)
        (cosmetic emulsions contg., protein-phospholipid complexes as
        emulsifiers for)
ΙT
     Emulsifying agents
        (protein-phospholipid complexes, for cosmetics contg. unsatd.
        fatty acids)
IT
     Collagens, compounds
     Globulins, compounds
     Proteins, specific or class
     RL: BIOL (Biological study)
        (complexes, with phospholipids, cosmetic emulsions contq. unsatd.
        fatty acids and, as emulsifiers)
ΙT
     Lecithins
     Phospholipids, compounds
     RL: BIOL (Biological study)
        (complexes, with proteins, cosmetic emulsions contg. unsatd.
        fatty acids and, as emulsifiers)
IT
     Cosmetics
        (emulsions, contg. unsatd. fatty acids and protein-phospholipid
        complexes, stable)
IΤ
    Waxes and Waxy substances
     RL: BIOL (Biological study)
        (jojoba, cosmetic emulsions contg., protein-phospholipid
        complexes as emulsifiers for)
     Fats and Glyceridic oils
    RL: BIOL (Biological study)
        (macadamia nut, cosmetic emulsions contg., protein-phospholipid
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complexes as emulsifiers for)

```
Fats and Glyceridic cils
      RL: BIOL (Biologica ( )tudy)
         (peach kernel, cosmetic emulsions contg., protein-
         complexes as emulsifiers for)
 IT
     Fatty acids, uses
      RL: BIOL (Biological study)
         (unsatd., cosmetic emulsions contg., protein-phospholipid
         complexes as emulsifiers for)
IT
      463-40-1, Linolenic acid
     RL: BIOL (Biological study)
         (cosmetic emulsions contg., protein-phospholipid complexes as
        emulsifiers for)
L2
     ANSWER 5 OF 8 CAPLUS COPYRIGHT 1997 ACS
AN
     1991:448140 CAPLUS
DN
     115:48140
TI
     Nutritive evaluation of fish protein hydrolysate
ΑU
     Sugiyama, Keikichi; Egawa, Makoto; Takada, Koji; Onzuka, Hiromu;
     Oba, Kenkichi
     Biol. Sci. Lab., Lion Corp., Odawara, 256, Japan
CS
SO
     Nippon Eiyo, Shokuryo Gakkaishi (1991), 44(1), 13-18
     CODEN: NESGDC; ISSN: 0287-3516
DT
     Journal
LΑ
     Japanese
                                             Section 18 Control
CC
     18-3 (Animal Nutrition)
     The amino acid score of enzymic fish protein hydrolyzate (FPH) (3.7%
AΒ
     moisture, 83.7% crude protein, 0.1% crude fat, and 10.4% crude ash)
     prepd. from defatted sardine meal was 100 according to FAO/WHO
     pattern (1973). Nutritive values of FPH in expts. using rats were
     as follows: protein efficiency ratio 3.2, net protein ratio 5.2,
     biol. value 86, true digestibility 99%, and net protein utilization
     85. Apparently, FPH had high nutritive values, almost equiv. to
     defatted sardine meal and somewhat superior to casein, but slightly
     lower than an amino acid mixt. corresponding to FPH. Blood
     components, liver wt., and liver fat wt. of rats fed FPH for 28 days
     were normal.
     sardine protein hydrolyzate nutritive value
ST
ΙT
     Blood plasma
        (compn. of, dietary sardine protein hydrolyzates effect on)
ΙT
     Body weight
        (dietary sardine protein hydrolyzates effect on)
IT
     Albumins, biological studies
     Globulins, biological studies
     RL: BIOL (Biological study)
        (dietary sardine protein hydrolyzates effect on)
IΤ
     Hemoglobins
     RL: BIOL (Biological study)
        (dietary sardine protein hydrolyzates effect on, of blood)
IΤ
     Liver, composition
        (lipids of, dietary sardine protein
     hydrolyzates effect on)
ΙT
     Lipids, biological studies
     RL: BIOL (Biological study)
        (of blood and liver, dietary sardine protein hydrolyzates effect
       on)
ΙT
     Hematocrit
        (of blood, dietary sardine protein hydrolyzates effect on)
ΙT
     Protein hydrolyzates
     RL: BIOL (Biological study)
        (of sardine, nutritive value of)
ΙT
        (protein hydrolyzates from defatted meal of, nutritive values of)
```

IT

Appetite Digestibility

```
(saroine protein hydrolyzates effect on)
 IT
         (wt. of, dietary sardine protein hydrolyzates effe
 ΙT
      Lipoproteins
      RL: BIOL (Biological study)
         (high-d., cholesterol of, of blood, dietary sardine protein
         hydrolyzates effect on)
 ΙT
      57-13-6, Urea, biological studies
                                         57-88-5, Cholesterol, biological
               60-27-5, Creatinine 9001-61-0, Leucine aminopeptidase
      studies
      RL: BIOL (Biological study)
         (of blood plasma, dietary sardine protein hydrolyzates effect on)
 L2
     ANSWER 6 OF 8 CAPLUS COPYRIGHT 1997 ACS
 ΑN
     1987:438464 CAPLUS
 DN
     107:38464
     Effects of amino acid supplement to a wheat pattern diet on growth
ΤI
     and liver lipid contents
ΑU
     Katayama, Yoshiho; Shimoshima, Chizuko; Saimei, Mari
CS
     Fac. Living Sci., Kyoto Prefect. Univ., Kyoto, 606, Japan
SO
     Kyoto-furitsu Daigaku Gakujutsu Hokoku, Rigaku, Seikatsu Kagaku
      (1986), (37), 47-54
     CODEN: KFDGBB; ISSN: 0368-5314
DT
     Journal
     English
LΑ
     18-3 (Animal Nutrition)
CC
     When male Charles River rats were fed a basal diet contg. 5% of an
AΒ
     amino acid mix. having a wheat protein pattern, inferior growth and
     fatty liver were obsd. Supply of 0.4% liver hydrolyzate or an amino
     acid mixt. similar to the pattern of liver hydrolyzate which
     contained no tryptophan, to the basal diet did not improve the
     growth of rats, but did reduce fat accumulation in the liver.
     Further supply of lysine and threonine to the liver
     hydrlyzate-contg. diet caused growth promotion and significant redn.
     of liver lipid contents together with the increase in serum lipid
     levels.
ST
     amino acid diet fatty liver
IT
     Liver, composition
        (lipids of, dietary wheat protein
      hydrolyzate model effect on)
ΙT
     Lipids, biological studies
     RL: BIOL (Biological study)
        (of liver, dietary wheat protein hydrolyzate model effect on)
TΨ
     Protein hydrolyzates
     RL: BIOL (Biological study)
        (of wheat, model for, liver lipids response to dietary)
ΤT
     Wheat
        (protein hydrolyzate model, liver lipids response to dietary)
ΙT
     Amino acids, biological studies
     RL: BIOL (Biological study)
        (wheat protein hydrolyzate model, liver lipids response to
        dietary)
ΙT
     56-87-1, Lysine, biological studies 72-19-5, biological studies
     RL: BIOL (Biological study)
        (liver protein hydrolyzate model supplemented with, growth and
        liver lipids response to dietary)
L2
     ANSWER 7 OF 8 CAPLUS COPYRIGHT 1997 ACS
AN
     1983:557187 CAPLUS
DN
     99:157187
     Effect of partial hydrolyzates of casein and soybean protein on
ΤI
     serum lipoproteins and fecal neutral steroids
    Tanaka, Chizuko; Nozaki, Yoshihisa
```

Dep. Food Nutr., Japan Women's Univ., Tokyo, 112, Japan

J. Nutr. Sci. Vitaminol. (1983), 29(4), 439-46

CS

SO

```
DT
      Journal
 LΑ
     English
 CC
     18-3 (Animal Nutrition)
AB
      Effect of partial hydrolyzate of casein and soybean protein on serum
      lipoproteins and fecal neutral steroids in cholesterol
      [57-88-5]-fed rats was studied. In rats fed partial hydrolyzate of
      casein, the levels of plasma and liver cholesterol, liver
     triglyceride, and the ratio of serum .beta./.alpha. lipoproteins had
     a tendency to decrease compared with those in rats fed intact
     protein. On the other hand, no difference was obsd. between soybean
     protein and partial hydrolyzate of soybean protein diet groups.
     excretion of neutral steroids to feces and the amt. of fecal
     coprostanol [360-68-9] were increased in rats fed soybean protein
     and partial hydrolyzate of soybean protein.
     protein hydrolyzate diet feces steroid; serum lipoprotein diet
ST
     protein hydrolyzate; liver lipid diet protein hydrolyzate;
     cholesterol protein diet feces steroid
IT
     Protein hydrolyzates
     Caseins, biological studies
     RL: BIOL (Biological study)
         (fecal steroids and liver lipids and serum lipoproteins response
        to dietary cholesterol and)
     Liver, composition
IT
         (lipids of, dietary proteins and
      protein hydrolyzates effect on)
ΙT
     Steroids, biological studies
     RL: BIOL (Biological study)
        (of feces, dietary proteins and protein hydrolyzates effect on)
ΤТ
     Glycerides, biological studies
     RL: BIOL (Biological study)
        (of liver, dietary proteins and protein hydrolyzates effect on)
ΙT
     Proteins
     RL: BIOL (Biological study)
        (of soybean, fecal steroids and liver lipids and serum
        lipoproteins response to dietary cholesterol and)
ΙT
        (steroids of, dietary proteins and protein hydrolyzates effect
        on)
TΤ
     Lipoproteins
     RL: BIOL (Biological study)
        (.alpha.-, of blood serum, dietary proteins and protein
        hydrolyzates effect on)
IΤ
     Lipoproteins
     RL: BIOL (Biological study)
        (.beta.-, of blood serum, dietary proteins and protein
        hydrolyzates effect on)
ΙT
     57-88-5, biological studies
     RL: BIOL (Biological study)
        (fecal steroids and liver lipids and serum lipoproteins response
        to dietary proteins and protein hydrolyzates and)
     360-68-9
     RL: BIOL (Biological study)
        (of feces, dietary proteins and protein hydrolyzates effect on)
L2
     ANSWER 8 OF 8 CAPLUS COPYRIGHT 1997 ACS
ΑN
     1978:545492 CAPLUS
DN
     89:145492
     Effect of protein hydrolyzate on alimentary hypercholesterolemia and
TI
     lipoidosis of the aorta in rabbits
ΑU
     Demireva, K.
CS
    Bulg.
```

CODEN: JNSVA5

SO

Scr. Sci. Med. (1978), 14(1), 67-71 CODEN: SSCMBX; ISSN: 0582-3250

```
DT
     Journal
LΑ
     English
CC
     18-3 (Animal Nutrition)
AΒ
     Rabbits given cholesterol [57-88-5] at 0.2 g/kg body wt./day had
     greatly increased serum cholesterol (.apprx.700 vs. 50 mg%)
     .beta.-lipoprotein (.apprx.1200 vs. 100 mg%), total lipid
     (.apprx.1900 vs. .apprx.300 mg%), and phospholipid (.apprx.450 vs.
     200 mg%) levels after 75 days. Their aortas had generally 32-56\%
     atherosclerotic cover (lipid) on the intima surface. Application of
     protein hydrolyzate at 5 mL/kg body wt./day s.c. tended to decrease
     the serum lipid, cholesterol, and .beta.-lipoprotein levels but
     approx. doubled the phospholipid levels. This treatment reduced the
     atherosclerotic alterations in the aorta to .apprx.0.5-15.2% cover
     of the intima.
ST
     atherosclerosis cholesterol protein hydrolyzate
IΤ
     Proteins
     RL: BIOL (Biological study)
        (hydrolyzates, atherosclerosis redn. with)
ΙT
     Lipids
     Phospholipids
     RL: BIOL (Biological study)
        (of blood serum, in atherosclerosis, protein hydrolyzates effect
        on)
ΙT
    Atherosclerosis
        (protein hydrolyzates effect on)
ΙT
    Artery, composition
        (aorta, lipids of, cholesterol of diet and
     protein hydrolyzates effect on)
ΙT
    Lipoproteins
    RL: BIOL (Biological study)
        (.beta.-, of blood serum, in atherosclerosis, protein
        hydrolyzates effect on)
ΙT
    57-88-5, biological studies
    RL: BIOL (Biological study)
        (lipids of blood serum and aorta in response to dietary, protein
```

hydrolyzates effect on)

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FILE 'USPATFULL, JAPIO, WPIDS' ENTERED AT 10:20:02 ON 16 DEC 1997

L1 3 S ((PROTEIN OR SOYBEAN OR WHEAT) (5A) HYDROLYZATE) (7A) (
```

=> d bib, ab 1-3

- L1 ANSWER 1 OF 3 JAPIO COPYRIGHT 1997 JPO and Japio
- AN 93-070334 JAPIO
- TI SKIN MEDICINE FOR EXTERNAL USE
- IN SASAKI ICHIRO; KOIDE CHIHARU; KOBAYASHI NOBORU; HIROBE MIDORI
- PA KOSE CORP, JP (CO 402300)
- PI JP 05070334 A 19930323 Heisei
- AI JP 91-233238 (JP03233238 Heisei) 19910912
- SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 1087, Vol. 17, No. 391, P. 43 (19930722)
- AΒ PURPOSE: To obtain a skin medicine for external use capable of effectively making its cell activator permeate to the interior of the skin and remarkably improving its effects by using a cell activator and a complex of a protein and/or its hydrolyzate with a phospholipid in combination. CONSTITUTION: A skin medicine for external use is obtained by blending a complex of a protein (e.g. collagen or lactoglobulin) and/or its hydrolyzate with a phospholipid (e.g. hydrogenated soybean lecithin) together with a cell activator such as an extract derived from blood serum or hemocyte, royal jelly, an aloe extract, .gamma.-linolenic acid with other ingredients. The above- mentioned complex is preferably blended in an amount of about 0.05-5wt.% in the skin medicine for the external use. The cell activator is preferably blended in an amount of about 0.01-1wt.%. The skin medicine for the external use is used as a milky lotion, a cream, a cosmetic, a beautifying solution, a cleansing, a pack, a shampoo, a rinse, a hair liquid, a foundation, a rouge, an eye liner, etc.
- L1 ANSWER 2 OF 3 JAPIO COPYRIGHT 1997 JPO and Japio
- AN 93-070333 JAPIO
- TI SKIN MEDICINE FOR EXTERNAL USE
- IN KOIDE CHIHARU; SASAKI ICHIRO; EGAWA JUNICHIRO; ASANO YUKI
- PA KOSE CORP, JP (CO 402300)
- PI JP 05070333 A 19930323 Heisei
- AI JP 91-233236 (JP03233236 Heisei) 19910912
- SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 1087, Vol. 17, No. 391, P. 43 (19930722)
- AB PURPOSE: To obtain a skin medicine for external use, containing an active oxygen remover and/or an antioxidant and further a complex of a protein or its hydrolyzate with a phospholipid in combination, capable of suppressing formation of peroxides in a product and excellent in aging preventive and skin roughening improving effects.

 CONSTITUTION: A skin medicine for external use is obtained by including an active oxygen remover (e.g. superoxide dismutase, mannitol or .beta.-carotene) and/or an antioxidant (e.g. vitamin B s, vitamin C or glutathione) and further a protein (e.g. collagen)-phospholipid (e.g. hydrogenated soybean lecithin) complex used in combination. The resultant skin medicine for external use is capable of suppressing formation of peroxides, stable with time and

excellent in skin aging preventive and roughening improving effects. The above-mentioned implex is preferably blended in amount of about 0.05-5wt.% in the medicine for the external use to sufficiently improve effects of the active oxygen remover and/or the antioxidant and prevent stickiness. The active oxygen remover and the antioxidant are preferably blended in an amount of about 0.001-3.0wt.%.

- L1 ANSWER 3 OF 3 JAPIO COPYRIGHT 1997 JPO and Japio
- AN 86-058560 JAPIO
- TI NUTRITION COMPOSITION TO BE FED THROUGH INTESTINAL TRACKS OR BLOOD VESSELS
- IN HIBINO HIDEHIKO; FUKUDA NOBUO
- PA NIPPON OIL & FATS CO LTD, JP (CO 000434)
- PI JP 61058560 A 19860325 Showa
- AI JP 84-179867 (JP59179867 Showa) 19840829
- SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 363, Vol. 1, No. 219, P. 148 (19860731)
- AB PURPOSE: The titled composition that is prepared by adding saccharides, proteins or its hydrolyzates, minerals, vitamins and specific lipids and forming an O/W type emulsion, thus being stably fed to stomach, intestines and veins and showing high effect of nutrition maintenance and curative effects.

CONSTITUTION: More than 20wt% of saccharides such as glucose, more than 10wt% of protein or its hydrolyzate, such as FAO/WHO type aminoacid infusion preparation, and aqueous solution containing water-soluble components of minerals and vitamins and an emulsifier, 5-30wt% of lipid containing more than 5wt% of at least one of highly unsaturated fatty acid such as eicosapentaenoic acid or gamma-linolenic acid, when needed antioxidant such as tocoferol are mixed under stirring to effect pre-emulsification. Then, a homogenizer is used to effect emulsification to give the titled composition in the form of O/W type emulsion.

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
24.50 24.65

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 10:27:46 ON 16 DEC 1997
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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(WHEAT OR WHEATS)

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23698 HYDROLYZATE

(HYDROLYZATE OR HYDROLYZATES)

156347 LIPID 128101 LIPIDS

67521 WHEAT

193142 LIPID

(LIPID OR LIPIDS)

57806 PHOSPHOLIPID

64530 PHOSPHOLIPIDS

82973 PHOSPHOLIPID

(PHOSPHOLIPID OR PHOSPHOLIPIDS)

244473 BOUND

6328 BOUNDS

(FILE 'HOME' ENTERED AT 13:29:45 ON 15 OCT 1997)

FILE 'CAPLUS' ENTERED AT 13:30:47 ON 15 OCT 1997

L21

L22

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              3 FILE BIOSIS
L4
              1 FILE EMBASE
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              3 FILE MEDLINE
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              3 FILE CAPLUS
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              O FILE INVESTEXT
L9
              0 FILE DRUGU
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L12
             4 FILE USPATFULL
L13
             O FILE WPIDS
L14
             14 FILE BIOSIS
L15
              7 FILE EMBASE
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             7 FILE MEDLINE
L17
            23 FILE CAPLUS
L18
             3 FILE SCISEARCH
L19
             0 FILE INVESTEXT
L20
             0 FILE DRUGU
     TOTAL FOR ALL FILES
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58 S (PROTEIN(3A)PHOSPHOLIPID)(7A)(PHOSPHOLIPID(2W)BOUND)

34 DUPLICATE REMOVE L14-L18 (20 DUPLICATES REMOVED)

M. Borin 10/15/97

=> d his

L21

L22

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(FILE 'HOME' ENTERED AT 13:29:45 ON 15 OCT 1997)
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FILE 'CAPLUS' ENTERED AT 13:30:47 ON 15 OCT 1997

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              O FILE DRUGU
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    TOTAL FOR ALL FILES
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            11 S (PROTEIN(3A)PHOSPHOLIPID(3A)COMPLEX) (7A) (BOUND(3A)PHO
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              O FILE DRUGU
    TOTAL FOR ALL FILES
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58 S (PROTEIN (3A) PHOSPHOLIPID) (7A) (PHOSPHOLIPID (2W) BOUND)

34 DUPLICATE REMOVE L14-L18 (20 DUPLICATES REMOVED)

=> d 4,8,10,11,16,21,25 bib, abs

08/836546

Page 2

- L22 ANSWER 4 OF 34 BIOSIS COPYRIGHT 1997 BIOSIS DUPLICATE 2
- AN 95:16199 BIOSIS
- DN 98030499
- TI Structure of a human Clara cell phospholipid-binding protein-ligand complex at 1.9 A resolution.
- AU Umland T C; Swaminathan S; Singh G; Warty V; Furey W; Pletcher J; Sax M
- CS Dep. Crystallography, Univ. Pittsburgh, Pittsburgh, PA 15260, USA
- SO Nature Structural Biology 1 (8). 1994. 538-545.
- LA English
- AB The Clara cell phospholipid-binding protein, previously referred to as CC10, is a homodimeric protein of M-r 15,800. It is secreted into the bronchioalveolar lining layer in mammalian lung. A combination of X-ray crystallography and chemical analysis was used to determine that phosphatidylcholine and phosphatidylinositol are bound to the protein as isolated from human lung lavage. We now report the crystal structure of the protein-phospholipid complex at 1.9 ANG resolution. The phospholipid is bound
 - inside the protein's large hydrophobic cavity. A model is proposed for the manner in which a channel may open to provide access to the cavity, allowing the binding or potential release of phospholipid.

M. Borin 10/15/97

- L22 ANSWER 8 OF 34 CAPLUS COPYRIGHT 1997 ACS
- AN 1989:110315 CAPLUS
- DN 110:110315
- TI Phosphorus nuclear magnetic resonance studies of lipid-protein interactions: human erythrocyte glycophorin and phospholipids
- AU Yeagle, P. L.; Kelsey, D.
- CS Sch. Med., Univ. Buffalo, Buffalo, NY, 14214, USA
- SO Biochemistry (1989), 28(5), 2210-15 CODEN: BICHAW; ISSN: 0006-2960
- DT Journal
- LA English
- os cjacs
- Human erythrocyte glycophorin contg. 4 mols. of phospholipid tightly bound to the protein was isolated from human red cell ghosts. This protein prepn. was reconstituted into a digalactosyl diglyceride bilayer. The 31P NMR spectrum of this reconstituted membrane produced an axially sym. powder pattern arising exclusively from the phospholipids bound to glycophorin. The width of the powder pattern, about 90 ppm, is .apprx.2-fold as broad as that normally exhibited by a phospholipid bilayer. The chem. shift tensor is perturbed relative to phospholipids in a bilayer. The spin-lattice relaxation rate of these protein-bound phospholipids is nearly an order of magnitude faster than phospholipids in a bilayer. The results are consistent with phospholipids tightly bound to the membrane protein and undergoing rotational diffusion, perhaps as a complex of phospholipid and protein.

- L22 ANSWER 10 OF 34 BIOSIS COPYRIGHT 1997 BIOSIS DUPLICATE 4
- AN 88:196370 BIOSIS
- DN BA85:97716
- TI PHOSPHOLIPIDS BOUND WITH BLOOD PLASMA PROTEINS IN CHILDREN WITH VITAMIN-D-DEFICIENT RICKETS.
- AU ANTONENKO L V
- CS P.M. BUIKO KIEV RES. INST. PEDIATR. OBSTET. GYNECOL., MINIST. HEALTH UKR. SSR, KIEV, USSR.
- SO UKR BIOKHIM ZH 59 (6). 1987. 81-84. CODEN: UBZHD4 ISSN: 0201-8470
- LA Russian
- AB Composition of **phospholipids bound** with plasma **proteins** in the healthy children and in those with

vitamin-D-deficient rickets are studied. It is found that the quantitative and qualitative content of phospholipids in the low- and high-density lipoproteins increases considerably with the rickets. At the same time the content of phospholipids which form complexes with fibrinogen gets two times lower. The character of changes in the phospholipid composition in protein fractions and in the whole plasma in case of rickets is different.

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Page 5

- L22 ANSWER 11 OF 34 CAPLUS COPYRIGHT 1997 ACS
- AN 1984:548210 CAPLUS
- DN 101:148210
- TI Study of the structural and dynamic properties of phospholipids of thylakoid membranes
- AU Kondakov, E. V.; Vasilenko, I. A.; Timofeev, K. N.
- CS Biol. Dep., M. V. Lomonosov Moscow State Univ., Moscow, USSR
- SO Biol. Membr. (1984), 1(7), 709-14 CODEN: BIMEE9
- DT Journal
- LA Russian
- AΒ In intact chloroplasts of spinach, a phospholipid fraction, differing sharply by motility from lipid mols. of the bilayer formed by total polar lipids of the chloroplasts, was found. This fraction consists of immobilized phospholipids bound with pigment-protein complexes. Inactivation actions, accompanied by increasing ionic permeability of thylakoid membranes, caused a disappearance at this fraction of immobilized phospholipids. Both in the chloroplast membrane and in aq. dispersion of their lipid ext., a part of the phospholipids showed a fast isotropic mobility. Actions destabilizing lipid-protein interactions and accompanied by disturbances in chloroplast ability to support a photoinduced transmembrane proton gradient (like freezing the chloroplasts without cryoprotector long-term storage at -5.degree.) decreased the anisotropy of chem. shift to 20-30 ppm. The data obtained using 31P-NMR, assocd. with registering the functional state of the chloroplasts by delayed fluorescence parameters, suggest that in damaging a disturbance in lamellar structure of thylakoid membranes occurs.

- L22 ANSWER 16 OF 34 BIOSIS COPYRIGHT 1997 BIOSIS
- AN 83:189724 BIOSIS
- DN BA75:39724
- TI PURIFICATION OF PHOSPHO LAMBAN A 22 KILODALTON PROTEIN FROM CARDIAC SARCOPLASMIC RETICULUM THAT IS SPECIFICALLY PHOSPHORYLATED BY CYCLIC AMP DEPENDENT PROTEIN KINASE.
- AU BIDLACK J M; AMBUDKAR I S; SHAMOO A E
- CS DEP. BIOL. CHEM., UNIV. MD., SCH. MED., BALTIMORE, MD. 21201, USA.
- SO J BIOL CHEM 257 (8). 1982. 4501-4506. CODEN: JBCHA3 ISSN: 0021-9258
- LA English
- AB Very low concentrations of the detergent, deoxycholate, were used to isolate 2 functionally interesting proteins from canine cardiac sarcoplasmic reticulum. These 2 proteins are phospholamban, a 22,000-dalton protein, specifically phosphorylated by cAMP-dependent protein kinase, and the (Ca2+, Mg2+)-ATPase, the major protein of the sarcoplasmic reticulum, responsible for the active transport Ca2+. The 22,000-dalton protein is first solubilized in a very low concentration of deoxycholate (over 2 orders of magnitude lower than normally employed), and then subjected to column chromatography. After gel filtration through Sephadex G-75, the 22,000-dalton protein appears as a single band on sodium dodecyl sulfate-polyacrylamide gels. The purified protein is specifically phosphorylated by cAMP-dependent protein kinase to a level of 0.15 mol of phosphate/mol of protein. Phospholipids are strongly
 - bound to the isolated 22,000-dalton protein at a ratio of about 5-8 mol of phospholipid to 1 mol of protein. Amino acid analysis of the purified phospholamban reveals an excess of acidic residues over basic. Hydrophobic residues represent .apprx. 40% of the residues. The (Ca2+, Mg2+)-ATPase is purified by first solubilizing all of the extrinsic proteins with a low concentration of deoxycholate. An increasing amount of the deoxycholate is then added to yield the purified (Ca2+, Mg2+)-ATPase. This protein is at least 95% pure as determined by sodium dodecyl sulfate-polyacrylamide gels and has an ATP hydrolytic activity of about 1.25 .mu.mol of Pi/mg per min. Further addition of deoxycholate to the purified enzyme enhances the enzyme's ability to hydrolyze ATP to .apprx. 2.5 .mu.mol of Pi/mg per min. The isolation of the 22,000-dalton protein and the (Ca2+,Mg2+)-ATPase will aid in understanding how these 2 proteins function and if they specifically interact with one another.

L22 ANSWER 25 OF 34 CAPLUS COPYRIGHT 1997 ACS

AN 1976:57490 CAPLUS

DN 84:57490

TI Fractionation of liquids of raw egg

AU Parkinson, T. L.

CS Flour Milling Baking Res. Assoc., Rickmansworth, Engl.

SO J. Sci. Food Agric. (1975), 26(11), 1639-45

CODEN: JSFAAE

DT Journal

LA English

AB Lipids isolated from pasteurized liq. egg dispersed in saline phosphate buffer were fractionated on silicic acid. About 75% of the triglycerides of fresh egg yolk existed in the free form whereas the remaining 25% of the triglycerides and .apprx.90% of the **phospholipids** were **bound** to **proteins** as part of the lipoprotein structures.



08/836546

Page 7

L22 ANSWER 21 OF 34 BIOSIS COPYRIGHT 1997 BIOSIS DUPLICATE 9

AN 80:159963 BIOSIS

DN BA69:34959

TI PHOSPHO LIPID BINDING PROPERTIES OF BOVINE FACTOR-V AND FACTOR-VA.

AU BLOOM J W; NESHEIM M E; MANN K G

CS HEMATOL. RES. SECT., MAYO CLIN., ROCHESTER, MINN. 55901, USA.

SO BIOCHEMISTRY 18 (20). 1979. 4419-4425. CODEN: BICHAW ISSN: 0006-2960

LA English

AB Factor V and factor Va binding to single bilayer phospholipid vesicles was investigated by light-scattering intensity measurements. This technique allowed measurement of free and phospholipid -bound protein concentrations from which equilibrium constants could be obtained. As controls, the Ca2+-dependent phospholipid binding of prothrombin and factor X were also studied. Average values obtained for Kd and lipid to protein ratio at saturation, mol/mol(n), for prothrombin (Kd = 2.3 .times. 10-6 M, n = 104) and factor X (Kd = 2.5 .times. 10-6 M, n = 46) binding to vesicles containing 25% Folch fraction III and 75% phosphatidylcholine in the presence of 2 mM Ca2+ were in agreement with those reported in the literature. Average factor V and factor Va values for the Kd and lipid to protein ratio at saturation (mol/mol) were Kd = 7.2 .times. 10-8 M and n = 270 for factor V and Kd = 4.4.times. 10-7 M and n=76 for factor Va. In contrast to prothrombin and factor X, factor V and factor Va demonstrated Ca2+-independent lipid binding. The number of factor V and factor Va molecules bound per vesicle was dependent on the phosphatidylserine content of the vesicle and the ionic strength of the buffer.

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              3 FILE CAPLUS
              1 FILE SCISEARCH
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^{18}
              O FILE INVESTEXT
L9
              O FILE DRUGU
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            11 S (PROTEIN (3A) PHOSPHOLIPID (3A) COMPLEX) (7A) (BOUND (3A) PHO
              4 DUPLICATE REMOVE L3-L7 (7 DUPLICATES REMOVED)
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             14 FILE BIOSIS
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              7 FILE EMBASE
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L17
             23 FILE CAPLUS
L18
              3 FILE SCISEARCH
L19
              O FILE INVESTEXT
              0 FILE DRUGU
L20
    TOTAL FOR ALL FILES
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58 S (PROTEIN(3A) PHOSPHOLIPID) (7A) (PHOSPHOLIPID(2W) BOUND)

34 DUPLICATE REMOVE L14-L18 (20 DUPLICATES REMOVED)

=> d bib, kwic 112 1-4

L21

L22

L12 ANSWER 1 OF 4 USPATFULL AN 93:89417 USPATFULL ΤI Aminosteroids for ophthalmic use Babcock, John G., Olga, WA, United States IN Polansky, Jon R., Mill Valley, CA, United States Bowman, Lyle M., Pleasanton, CA, United States Tsao, Sheng-Wan, San Carlos, CA, United States Si, Erwin C., Alameda, CA, United States Chandrasekaran, Santosh K., Moraga, CA, United States Insite Vision Incorporated, Alameda, CA, United States (U.S. PA corporation) PΙ US 5256408 931026 ΑI US 92-836888 920219 (7) Division of Ser. No. US 90-537062, filed on 12 Jun 1990, now RLI patented, Pat. No. US 5124154 DT Utility EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Azpuru, LREP Howrey & Simon CLMN Number of Claims: 9 ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 1252 CAS INDEXING IS AVAILABLE FOR THIS PATENT. · . . enhanced by lipid paroxidation which is a chain reaction SUMM that alters or destroys the polyunsaturated fatty acids of the membrane phospholipids. Membrane bound

proteins are also affected. The structural integrity and the function of cell membranes are irreversibly changed. Extra-cellular calcium can enter the. . .

M. Borin 10/15/97

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L12 ANSWER 2 OF 4 USPATFULL
AN
       93:84871 USPATFULL
TI
       Aminosteroids for ophthalmic use
ΙN
       Babcock, John C., Olga, WA, United States
       Polansky, Jon R., Mill Valley, CA, United States
       Bowman, Lyle M., Pleasanton, CA, United States
       Tsao, Sheng-Wan, San Carlos, CA, United States
       Si, Erwin C.-C., Almeda, CA, United States
       Chandrasekaran, Santosh K., Moraga, CA, United States
PA
       Insite Vision Incorporated, Alameda, CA, United States (U.S.
      corporation)
PΙ
      US 5252319 931012
      US 92-836866 920219 (7)
ΑI
      Division of Ser. No. US 90-537062, filed on 12 Jun 1990, now
RLI
      patented, Pat. No. US 5124154
DT
      Utility
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Azpuru,
      Carlos
LREP
      Howrey & Simon
      Number of Claims: 17
CLMN
ECL
      Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 1270
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
            . enhanced by lipid peroxidation which is a chain reaction
      that alters or destroys the polyunsaturated fatty acids of the
      membrane phospholipids. Membrane bound
    proteins are also affected. The structural integrity and
      the function of cell membranes are irreversibly changed.
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Extra-cellular calcium can enter the.

M. Borin 10/15/97

L12 ANSWER 3 OF 4 USPATFULL AN 93:37562 USPATFULL ΤI Aminosteroids for ophthalmic use IN Babcock, John C., Olga, WA, United States Polansky, Jon R., Mill Valley, CA, United States Bowman, Lyle M., Pleasanton, CA, United States Tsao, Sheng-Wan, San Carlos, CA, United States Si, Erwin C., Alameda, CA, United States Chandrasekaran, Santosh K., Moraga, CA, United States PAInSite Vision Incorporated, Alameda, CA, United States (U.S. corporation) PΙ US 5209926 930511 ΑI US 92-933574 920824 (7) Continuation of Ser. No. US 92-838875, filed on 19 Feb 1992, now abandoned which is a division of Ser. No. US 90-537062, filed on 12 Jun 1990, now patented, Pat. No. US 5124154, issued on 23 Jun 1992 Utility EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Azpuru, Carlos Freed, Kjeldgaard, Griffin & Inskeep LREP CLMN Number of Claims: 20 ECLExemplary Claim: 1 DRWN No Drawings LN.CNT 1275 CAS INDEXING IS AVAILABLE FOR THIS PATENT. . . enhanced by lipid peroxidation which is a chain reaction SUMM that alters or destroys the polyunsaturated fatty acids of the membrane phospholipids. Membrane bound proteins are also affected. The structural integrity and the function of cell membranes are irreversibly changed. Extra-cellular calcium can enter the.





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L12 ANSWER 4 OF 4 USPATFULL
      92:50898 USPATFULL
AN
      Aminosteroids for ophthalmic use
TΙ
IN
       Babcock, John C., Olga, WA, United States
      Polansky, Jon R., Mill Valley, CA, United States
       Bowman, Lyle M., Pleasanton, CA, United States
      Tsao, Sheng-Wan, San Carlos, CA, United States
       Si, Erwin C., Alameda, CA, United States
       Chandrasekran, Santosh K., Moraga, CA, United States
       InSite Vision Incorporated, Alameda, CA, United States (U.S.
       corporation)
      US 5124154 920623
PΙ
      US 90-537062 900612 (7)
ΑI
      Utility
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Azpuru,
       Carlos
       Burns, Doane, Swecker & Mathis
LREP
CLMN
      Number of Claims: 14
ECL
      Exemplary Claim: 12
DRWN
      No Drawings
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      . . . enhanced by lipid peroxidation which is a chain reaction
       that alters or destroys the polyunsaturated fatty acids of the
      membrane phospholipids. Membrane bound
    proteins are also affected. The structural integrity and
       the function of cell membranes are irreversibly changed.
      Extra-cellular calcium can enter the.
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M. Borin 10/15/97

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 it was deleted. To see all L#s defined in this session, enter
 'DISPLAY HISTORY' at an arrow prompt (=>).
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              4 DUPLICATE REMOVE L3-L7 (7 DUPLICATES REMOVED)
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              4 FILE USPATFULL
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              0 FILE WPIDS
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              7 FILE EMBASE
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              3 FILE SCISEARCH
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              0 FILE INVESTEXT
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              0 FILE DRUGU
     TOTAL FOR ALL FILES
L21
             58 S (PROTEIN (3A) PHOSPHOLIPID) (7A) (PHOSPHOLIPID (2W) BOUND)
L22
             34 DUPLICATE REMOVE L14-L18 (20 DUPLICATES REMOVED)
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FULL ESTIMATED COST
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
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                                                                  TOTAL
                                                       ENTRY
                                                                SESSION
CA SUBSCRIBER PRICE
                                                       -7.73
                                                                -15.46
SESSION WILL BE HELD FOR 60 MINUTES
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M. Borin

10/15/97

STN INTERNATIONAL SESSION SUSPENDED AT 14:56:03 ON 15 OCT 1997